

NEW TECHNOLOGY  
COMPACT SERIES



# VoltPro Driver Electronics

Low cost and high efficiency in one!

**Volt**pro  
“ Upgrade your energy “

### / VoltPro Eco Series Inverter

AC 1 Phase 200V-240V, 0.37kW-2.2kW  
AC 3 Phase 340V-420V, 0.75kW-3.7kW

#### Introduction

The VoltPro Eco series inverter is a mini-type low-power single-phase inverter with optimum SVC and V/F control, stable performance and simplified functions. It reserves the configuration most-frequently used by users, and can be extended with several I/O and communication interfaces.

#### Technical Characteristics

- \* Small size and easy operation; Embedded with DC brake function and can have optional external brake unit; Accuracy of stop position.
- \* Separate keyboard that supports hot plug and can be pulled out to a distance of 50m at most; a copy keyboard with parameter control is optional.
- \* Extensible RS485 communication interface which enables standard MODBUS-RTU communication and can be compatible with a variety of host computers.
- \* Long service-life with a controllable fan; the AVR (Automatic Voltage Regulation) function ensures large output torque in case of low input voltage.
- \* Multiple protection functions to ensure safe and reliable operation of the motor.
- \* All standard products have been treated with conformal coatings.
- \* Air-duct isolated by windshields to ensure good thermal dissipation and thus significantly improved adaption to the environment.



#### Applications

Mainly applies to low-power non-VC situations with demanding requirements for input/output. Die-cutting machine, carving machine, textile machine, glass-making machine, dyeing machine, automatic production line and food machine.

#### Accessories

ECO-IO expansion card, ECO-485 communication internal brake unit.

### / VoltPro STANDARD Series Inverter

AC 1 Phase 200V-240V, 0.37 - 2.2kW  
AC 3 Phase 200V-240V, 0.37 - 2.2kW  
AC 3 Phase 340V-420V, 0.75 - 22kW

#### Introduction

The VoltPro Standard series inverter is a general-purpose low-power inverter with optimum control modes including SVC and V/F control, stable performance, diversified functions, high cost performance, optimum structure and elegant appearance.

#### Technical Characteristics

- \* Optimum structure and elegant appearance; can be installed through both slides and holes; easy to use.
- \* Reliable small integrated module to ensure good quality and performance at a lower price.
- \* Standard internal RS-485 communication module which enables standard MODBUS-RTU communication; through such a module, one host computer can communicate with several inverters simultaneously and quickly with perfect anti-interference performance.
- \* The 15kW or below types have standard internal brake units, and the 18.5-22kW types can have optional internal brake units. The 11kW, 15 kW types have standard DC inductors, and 18.5-22kW types can have optional DC inductors.



#### Applications

Mainly applies to low-power non-VC situations with demanding requirements for input/output. carving machine, textile machine, glass-making machine and dyeing machine.

#### Accessories

External keyboard, extension cord.

## / VoltPro Premium Series Inverter

AC 1 Phase 200V-240V, 0.37kW-2.2kW  
AC 3 Phase 340V-420V, 0.75kW-3.7kW

### Introduction

The CDI-E180-series inverter is a stable and versatile high-performance vector control inverter with optimum control modes such as SVC, V/F control and VC, and is widely used in situations with demanding requirements for speed control precision, torque response speed and low-frequency output torque.

### Technical Characteristics

\* Due to the new vector control algorithm, the inverter features large start torque, quick torque response and high control precision to further improve the efficiency of the motor.

\* The large number of internal function modules such as timer, virtual time-delay relay and math operation modules are as a whole equivalent to an additional small PLC, so that the cost is significantly reduced.

\* A special-purpose function is embedded, and the conversion between the special-purpose Function and the common function is available through one function code, for the convenience of type selection and flexibility in use.

\* The 15kW or below types have standard internal brake units, the 18.5-30kW types can have optional internal brake units, and the 37kW above types shall be connected with external brake units. The 11kW, 15 kW, 200 kW or above types have standard DC inductors, and 18.5-55kW types can have optional DC inductors.



### Applications

Electric power, textile and chemical fiber, building materials, oil industry, chemical industry, metallurgy, municipal facilities, paper-making, food & beverage and tobacco.

### Accessories

Premium-I/O expansion card; Premium-PG coder expansion card; Premium-485 communication expansion card; Premium-DP communication expansion card.

Premium-ZS injection molding machine expansion card; Premium-WSP constant pressure water supply expansion card.



**/ VoltPro Motors Driver Technical Standards**

	Item	Specifications
<b>Control</b>	Control Mode	V/F Control Open-Loop Vector Control (SVC) Vector Control (VC) (Premium Series)
	Frequency Precision	Dijital: 0.02% Analog: 0.1%
	V/F Curve	Linear, square root, any V/F
	Overload Capacity	G-type: 150% rated current for 60s; 180% rated current for 3s P-type: 120% rated current for 60s; 150% rated current for 3s
	Start Torque	G-type: 0.5Hz/150% (SVC) , 0Hz/180% (VC)
	Speed Adjustment Range	1:100 (SVC) 1:1000 (VC)
	Steady Speed Precision	0.5% (SVC) 0.02% (VC)
	Torque Precision	5% (VC)
	Torque Compensation	Manual torque compensation (0.10%-30.0%); Automatic torque compensation
	Operating Mode	Key-board, Terminal, RS485 communication
<b>Basic Type Function</b>	Frequency Source	Diversified input modes for every source: keyboard potentiometer, external analog,digital setting, pulse frequency, multi-speed, simple PLC, communication, computing results, etc.
	Torque Source	14 torque sources, including digital setting, external analog, pulse setting,multi-order, communication, computing results, etc.
	Acceleration and Deceleration Time	4 groups of lines ; S Curve 1, S Curve 2
	Multi-speed	16-shift speeds at most; can be switched by different combination of order terminals
	Internal PID	Closed-loop process control system is available
<b>Communication</b>	VoltPro STANDARD	External MODBUS-RTU for RS485
	VoltPro Premium / Eco	Internal MODBUS-RTU for RS485 Internal PROFIBUS-DP for E180-DP
<b>Motor</b>	Voltpro STANDARD	Only for asynchronous motors
	VoltPro Premium	For asynchronous motors and synchronous motors
<b>Display</b>	Operation Information	At most 32 parameters can be displayed
	Fault Information	Three pieces of history fault information can be saved
<b>Protection</b>	Inverter Protection	Over-current, over-voltage, module fault protection, under-voltage, overheat, overload, external fault protection, EEPROM fault protection, ground protection, and default phase
	Inverter Alarm	Locked-rotor protection, overload alarm
<b>Environment</b>	Ambient Temperature	-10 °C 40 °C
	Storage Temperature	-10 °C 65 °C
	Ambient Humidity	Max. 90% RH (No condensation)
	Altitude/Vibration	<1000 m / <0.6 g

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